



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Level 3, 2004

Economics

Understand marginal analysis and the behaviour of firms (90629)

Understand the market and allocative efficiency (90630)

**Describe and illustrate resource allocation via the public sector
to compensate market failure (90631)**

Describe and illustrate aggregate economic activity (90632)

National Statistics

Assessment Report

Assessment Schedule

Economics, Level 3, 2004

General Comments

Candidates gaining Achievement understood the requirements of the standards, and answered the questions asked. They were able to *describe* economic concepts appropriate to the standards and define economic terms without using the term they were being asked to define. They *interpreted* economic models correctly, and *adjusted* economic models by appropriately labelling and positioning curves to *illustrate* economic events, and clearly showed changes on both axes. The candidates *identified* key economic concepts and *used* them in descriptions, or *used* them to make correct calculations. Good graphing skills, including correct labelling of diagrams, facilitated achievement.

Candidates gaining Achievement with Merit were also able to *explain* economic concepts. The candidates provided accurate explanations that *identified* key economic ideas, and clearly answered the *why* being asked for in questions. Candidates who gave generic answers struggled to address the specific situations given in the resources and questions.

Candidates gaining Achievement with Excellence were able to *comprehensively analyse*. They had a wide base of current economic knowledge that they applied accurately and appropriately to the specific situations outlined in the resource materials and questions.

Candidates should attempt all questions as an Achievement component is likely to exist in all questions. Achievement with Excellence may also require candidates to display a thorough understanding of the relevant economics over a number of questions.

Economics: Understand marginal analysis and the behaviour of firms (90629)

National Statistics

Number of Results	Percentage			
	Not Achieved	Achieved	Merit	Excellence
4,564	45.0%	48.8%	5.2%	1.0%

Assessment Report

Candidates gaining Achievement showed some understanding of marginal analysis and its application to situations involving consumers and producers, including diminishing marginal utility and demand, the law of diminishing returns, marginal cost and supply, and profit maximisation occurring at the output where $MR = MC$. They were able to define terms using words other than those being defined. For example, in Question One *satisfaction* to define utility and *extra* to define marginal. They were able to interpret and construct graphs and to correctly position cost and revenue curves. They used rulers to draw straight lines (eg AR curve in Question Five) and to accurately position price and quantity information on the axes. They also correctly labelled all curves.

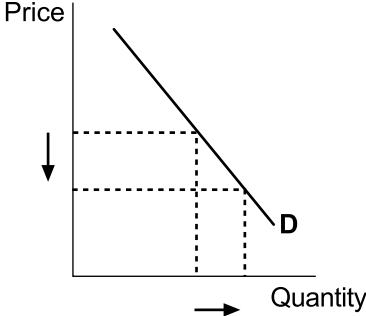
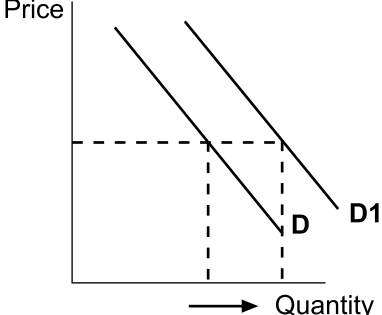
Candidates gaining Achievement with Merit and Achievement with Excellence understood that terms like *explain* and *justify* required them to present information in specific ways beyond just defining. These candidates showed that they had carefully studied the resource materials (such as Graph 1) and used them to assist them in answering later questions.

Assessment Schedule

Economics: Understand marginal analysis and the behaviour of firms (90629)

Evidence Statement

A, M, E	Evidence	Achievement	Merit	Excellence																		
A	<p>Question 1(a)</p> <table><tr><th colspan="3">TABLE 1 Gail's Utility Schedule for Espresso Coffee (per day)</th></tr><tr><th>No. of cups</th><th>Total Utility (cents)</th><th>Marginal Utility (cents)</th></tr><tr><td>1</td><td>300</td><td>300</td></tr><tr><td>2</td><td>500</td><td>200</td></tr><tr><td>3</td><td>650</td><td>150</td></tr><tr><td>4</td><td>750</td><td>100</td></tr></table>	TABLE 1 Gail's Utility Schedule for Espresso Coffee (per day)			No. of cups	Total Utility (cents)	Marginal Utility (cents)	1	300	300	2	500	200	3	650	150	4	750	100	4/5 calculations correct.		
TABLE 1 Gail's Utility Schedule for Espresso Coffee (per day)																						
No. of cups	Total Utility (cents)	Marginal Utility (cents)																				
1	300	300																				
2	500	200																				
3	650	150																				
4	750	100																				
A	<p>Question 1(b)</p> <p>The law of diminishing marginal utility states that as quantity consumed increases the extra satisfaction (MU) from consuming an extra unit decreases.</p> <p>NOTE: Because the question required a definition of the law (rather than just stating the law), a term other than utility (eg satisfaction) must have been used in the definition.</p>	Correct definition.																				
A	<p>Question 1(c)</p> <table><tr><th colspan="2">TABLE 2 Gail's Demand Schedule for Cups of Espresso Coffee (per day)</th></tr><tr><th>Price (\$)</th><th>Quantity Demanded</th></tr><tr><td>1.00</td><td>4</td></tr><tr><td>1.50</td><td>3</td></tr><tr><td>2.00</td><td>2</td></tr><tr><td>2.50</td><td>1, 1.5 or 2</td></tr><tr><td>3.00</td><td>1</td></tr></table>	TABLE 2 Gail's Demand Schedule for Cups of Espresso Coffee (per day)		Price (\$)	Quantity Demanded	1.00	4	1.50	3	2.00	2	2.50	1, 1.5 or 2	3.00	1	4/5 calculations correct.						
TABLE 2 Gail's Demand Schedule for Cups of Espresso Coffee (per day)																						
Price (\$)	Quantity Demanded																					
1.00	4																					
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2.00	2																					
2.50	1, 1.5 or 2																					
3.00	1																					

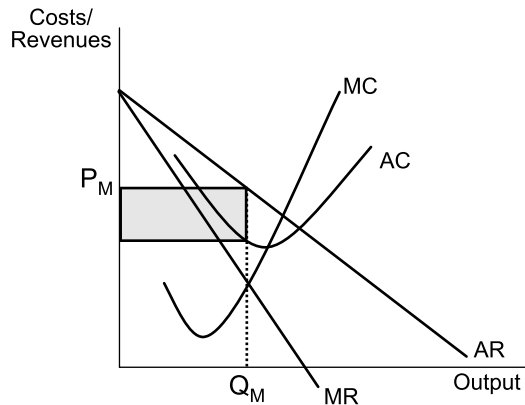
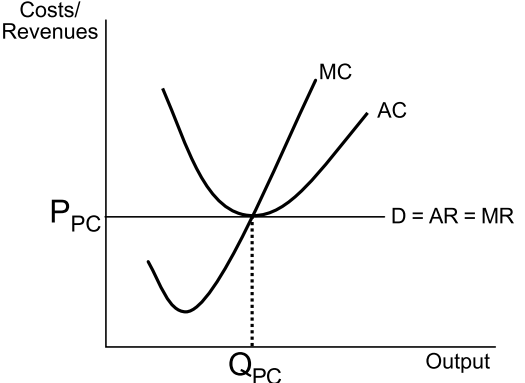
A, M, E	Evidence	Achievement	Merit	Excellence
A	<p>Question 1(d) Event 1</p> <p>Cause Decrease price ONLY</p> <p>Sketch</p> 	<p>Correct cause</p> <p>AND</p> <p>Sketch shows move down curve with dotted lines and arrows or labels.</p>		
A	<p>Question 1(d) Event 2</p> <p>Cause Increased income, decreased price of a complement or a named complement (sugar/milk), increased price of a substitute, or a named substitute (any other coffee/drink), tastes change in favour of coffee, health benefits associated with increased coffee consumption.</p> <p>Sketch</p> 	<p>Correct cause</p> <p>AND</p> <p>Sketch shows shift of curve right and new D labelled, or arrow indicates change.</p>		
A+M	<p>Question 1(e)</p> <p>The price consumers are prepared to pay for a good depends on the marginal utility they receive from it (ie there is a relationship between price and marginal utility / consumer will continue to consume up to the point where $P = MU$).</p> <p>Since MU falls as quantity increases (ie the law of diminishing MU) consumers will only buy larger quantities if the price falls to match their lower MU.</p> <p>So a demand curve must slope downward to the right with lower prices matching lower MUs of larger quantities consumed.</p>	<p>Identification/ explanation of the relationship between price and marginal utility, or that consumer equilibrium is achieved where price is equal to marginal utility.</p>	<p>Full explanation with the answer covering all three points listed under evidence.</p>	

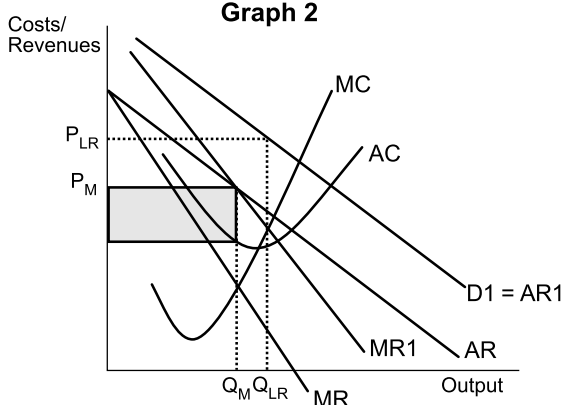
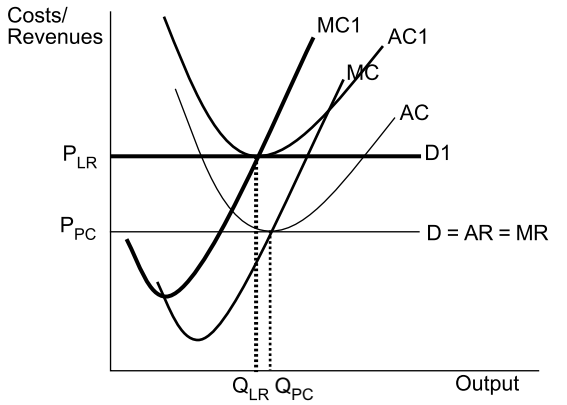
A, M, E	Evidence	Achievement	Merit	Excellence
A+E	Question 2(a) After the 3rd worker.	Correct answer.		
A+M+E	Question 2(b) In the short-run, at least one factor input is fixed. If additional quantities of other (variable) factors are added into the production process, the total output will increase at a diminishing rate (marginal product must eventually fall). This is because each factor has less of the fixed factor to work with, reducing their ability to produce (extra) output.	Answer shows an understanding of the law of diminishing returns, ie at least one factor is fixed, quantities of a variable factor are increased, and total output will at some point increase at a diminishing rate.	The answer describes the effect of diminishing returns, ie decreasing efficiency/ productivity in the workplace, or that each factor has less of the fixed factor to work with, reducing their ability to produce (extra) output.	
A+M+E	Question 2(c) <ul style="list-style-type: none"> As each additional variable unit produces less when diminishing returns are occurring, the production of extra units of output will require more and more of variable inputs to produce them (compared with earlier units). Therefore, it follows that the cost of each additional unit produced (ie MC) must increase as more inputs are being used to produce it. So, marginal cost must rise as output increases 	Answer shows evidence of diminishing input/output ratios, ie that the production of the same quantity of output will require increasing amounts of the variable factor input.	Full explanation with the answer covering all three points listed under evidence.	
A+E	Question 2(d)(i) Supply is the amount of a good/service producer's offer for sale at each price (ceteris paribus).	Correct definition.		
A+E	Question 2(d)(ii) Marginal cost is the addition to total cost resulting from the production of an extra unit of output.	Correct definition.		
M+E	Question 2(d)(iii) A firm will only offer a good/service for sale if the price they receive covers the cost of producing it (ie the MC).		Correctly explains link between MC and QS.	

A, M, E	Evidence	Achievement	Merit	Excellence
A+M+E	Question 2(d)(iv) Supply = MC curve above the shut-down point ie MC above $P = \text{minimum AVC}$ in SR as no point in producing if revenue earned not sufficient to even cover additional costs of resources needed to produce output, or MC above $P = \text{minimum AVC}$ in SR as losses will be reduced if shut down (stop producing) and only have to pay fixed costs, or MC above $P = \text{minimum AC}$ in LR as no point in producing if earning sub-normal profit as owner would be better off shifting their resources to their next best alternative.	Identifies a difference between MC + S.	Identifies difference and explains why S + MC different.	
A	Question 3(a) 	Correctly plotted and labelled market supply.		
A	Question 3(b)(i) Duopoly	Correctly identifies duopoly.		
A	Question 3(b)(ii) <i>One of:</i> Monopolistic competition Features: large number of firms, close substitutes, differentiated product, limited control over price, weak barriers to entry. Oligopoly Features: a few sellers, close substitutes, price maker, kinked demand curve, control over quantity sold, strong barriers to entry, differentiated product. Monopoly Features: one seller, no close substitutes, price maker, control over quantity sold, strong barriers to entry. Monopsony Features: one buyer, equivalent to monopoly on buying side. NOTE: Duopoly and two features of a duopoly are acceptable answers if the candidate selected a market structure other than Duopoly in question b(i).	Identifies another market and 2 of its features.		

A, M, E	Evidence	Achievement	Merit	Excellence
A	Question 3(c) Examples = <i>Locate near cafes</i> → so can deliver beans quickly and this prompt quality service encourages more sales / demand <i>Differentiate product</i> by branding / advertising (that associates your product with better quality beans etc) → increased demand and more sales <i>Product modification</i> , ie special blend becomes popular → increased demand and more sales.	Identifies a specific (to coffee suppliers) example of non-price marketing and links this to increased sales or demand.		
A+E	Question 4(a) Firm A - MR = \$1.50 - TR = \$150 - AC = \$1.50 Firm B - Price = \$2.00 - TC = \$1 750	4/5 correct calculations.		
A+E	Question 4(b) Firm A Rec 3 Firm B Rec 1	BOTH answers correct.		

A, M, E	Evidence	Achievement	Merit	Excellence
A+M+E	Question 4(c)			
	<u>Firm A Rec 3</u>	<u>Firm A Rec 3</u>	<u>Firm A Rec 3</u>	
	<ul style="list-style-type: none"> – The firm is currently operating at a point where $MC > MR$. – The firm is making marginal losses on some units and these decrease maximum total profit. – The firm should reduce output to the level where $MR = MC$ so that all these marginal losses would be avoided and the firm would be maximising profit. 	Is able to identify the first point listed under evidence.	Full explanation with the answer covering all three points listed under evidence.	
	OR			
	<u>Firm B Rec 1</u>	<u>Firm B Rec 1</u>	<u>Firm B Rec 1</u>	
	<ul style="list-style-type: none"> – The firm is currently operating at the point of profit maximisation where $MC = MR$. – The firm should not reduce output; if it were to do so it would miss out on marginal profits because $MR > MC$ for these output levels and so profit would not be maximised. 	Is able to identify the first point listed under evidence.	Full explanation with the answer covering both points listed under evidence.	
	Or			
	<ul style="list-style-type: none"> – The firm is currently operating at the point of profit maximisation where $MC = MR$. – The firm should not increase output; if it were to do so it would miss out on marginal profits because $MC > MR$ for these output levels and so profit would not be maximised. 			

A, M, E	Evidence	Achievement	Merit	Excellence
A+E	<p>Question 5(a) Graph 2: Monopoly Firm</p> 	<p>3 out of 4 of:</p> <ol style="list-style-type: none"> 1. AR curve to the right of MR, and labelled. 2. AR will intersect X axis at distance double MR. 3. Identifies P_M and Q_M 4. Shades supernormal profit . 		
A+E	<p>Question 5(b) Graph 3: Perfectly Competitive Firm</p> 	<p>4 out of 4 of:</p> <ol style="list-style-type: none"> 1. AC curve intersects MC at its minimum. 2. AC curve intersects MC where MR = MC. 3. AC is labelled. 4. Identifies P_{PC} and Q_{PC} 		
A+M+E	<p>Question 5(c)</p> <p>In perfect competition there are <u>NO</u> BARRIERS TO ENTRY so other PC firms (who have PERFECT KNOWLEDGE) will 'see' these super-normal profits being earned and will enter the market.</p> <p>Their entry involves the reallocation of some resources (because there is PERFECT MOBILITY OF RESOURCES) which in turn increases market supply so that the price falls until $AR = AC$ (because the firm is a PRICE TAKER) (no super-normal profits being earned) and thus no incentive for other firms to enter the market.</p>	<p>Is able to apply one feature of perfect competition and make a partial explanation.</p>	<p>Is able to apply two or more features of perfect competition and make a full explanation.</p>	

A, M, E	Evidence	Achievement	Merit	Excellence
A+M+E	<p>Question 5(d)(i)</p> <p>Graph 2</p> 	<p>AR curve shifted right and clearly labelled.</p>	<p>3 out of 3 of:</p> <ol style="list-style-type: none"> 1. AR curve shifted right and clearly labelled. 2. MR curve shifted right and clearly labelled. 3. Identifies P_{LR} and Q_{LR} 	<p>Excellence for question 5 is awarded if the candidate accumulates:</p> <p>3 merit plus 2 achieved scores across the whole of question 5.</p> <p>(Comprehensive application of marginal analysis in a given situation.)</p>
A+M+E	<p>Question 5(d)(ii)</p> 	<p>D increased and clearly labelled.</p> <p>(Note: could show SR increase in D and then decrease back to D, but must be clearly labelled.)</p>	<p>3 out of 3 of:</p> <ol style="list-style-type: none"> 1. AC curve shifted up and clearly labelled. (Note: could show SR increase in AC and then decrease back to AC but must be clearly labelled.) 2. The firm must be making normal profits. 3. Identifies P_{LR} and Q_{LR} (Q_{LR} can be the same as, less than or greater than Q_{PC}) 	

A, M, E	Evidence	Achievement	Merit	Excellence
A+M+E	Question 5(d)(iii) 1. Monopoly Firm <ul style="list-style-type: none"> Increased market demand increases both AR and MR, causing both to shift to the right. At the initial output (Q_M), $MR > MC$ and the monopoly firm is missing out on marginal profits (between Q_M and Q_{LR}) So as to maximise profits, the firm will increase output to Q_{LR}, ie where new $MR = MC$ 	Answer covers at least 1 point, and the candidate demonstrates some understanding of marginal analysis.	Answer covers at least 2 points, and the candidate demonstrates an understanding of marginal analysis.	
A+M+E	Question 5(d)(iii) 2. Perfectly Competitive Firm <ul style="list-style-type: none"> The increase in market demand will lead to an increase in demand for resources/factors of production. For example, new firms that enter the market will seek to purchase resources and all firms, including existing firm, will be faced with higher costs of production (assuming scarcity of resources). Marginal cost curve shifts left. At the initial output (Q_{PC}), $MC > MR$ and the perfectly competitive firm is making marginal losses on output between Q_{PC} and Q_{LR}. So as to maximise profits, the firm will decrease output to Q_{LR}, ie where new $MR = MC$. 	Answer covers at least 1 point, and the candidate demonstrates some understanding of marginal analysis.	Answer covers at least 2 points, and the candidate demonstrates an understanding of marginal analysis.	

Judgement Statement

Understand marginal analysis and the behaviour of firms

Achievement	Achievement with Merit	Achievement with Excellence
Use marginal analysis to derive the demand and supply curves and to describe the behaviour of firms in different market situations. (A) Any ELEVEN As or better	Use marginal analysis to explain changes in output and pricing decisions. (M) Achievement plus any THREE Ms	Comprehensively apply marginal analysis. (E) Merit plus any TWO Es

Note: Insufficient evidence to support a judgement above (**NS**)

Economics: Understand the market and allocative efficiency (90630)**National Statistics**

Number of Results	Percentage			
	Not Achieved	Achieved	Merit	Excellence
4,569	56.4%	32.1%	11.1%	0.4%

Assessment Report

Candidates gaining Achievement understood operative words such as *describe*, *shade* and *calculate*. These candidates could clearly illustrate a shift of the supply curve, understood how to calculate the coefficient of price elasticity of demand, and could distinguish between elastic or inelastic demand. They understood the concept of cross elasticity, could calculate the incidence of a sales tax and illustrate the loss of allocative efficiency. In *explain* questions they stated the end result or gave short, simple statements.

They were able to correctly draw graphs (labelling both curves and axes), accurately complete calculations, and write simple (single word) answers. Achievement level candidates could recall appropriate economic concepts, while those at higher levels of achievement related the models and theory to the context given in the case study (ie the takeaway industry).

Candidates gaining Achievement with Merit and Achievement with Excellence could effectively *explain* their answers, using correct economic terminology and the resource material to support their statements. Those gaining Excellence could *comprehensively analyse* the effects of a change in a market for the required questions.

Assessment Schedule

Economics: Understand the market and allocative efficiency (90630)

Evidence Statement

Ques.	A, M, E	Evidence	Evidence contributing to Achievement	Evidence contributing to Achievement with Merit	Evidence contributing to Achievement with Excellence
1(a)	A1	Supply curve moves to the right, with an increase in equilibrium quantity and a fall in equilibrium price.	New supply curve drawn to the right, and labelled; new Price and Quantity shown and labelled.		
1(b)	A1/M1	(i) Situation = excess supply OR surplus (ii) leads to a fall in price, and a subsequent increase in quantity demanded and a decrease in the quantity supplied until $S = D$ once again.	Market situation identified.	A clear and detailed description of how the market moves back to equilibrium.	
1(c)	A2	1.72 plus working.	Correct answer plus working.		
1(d)	A2/M2	(i) Elastic (ii) because of the large number of substitutes available/ luxury good.	Elastic.	Correct reason.	
1(e)	M2	Elastic demand implies that a decrease in price will lead to a proportionally larger increase in quantity, hence an increase in revenue.		Correct explanation.	
1(f) (i) and (ii)	A2/M2	(i) Positive (ii) the increase/decrease in the price of one commodity causes an increase/decrease in the demand for the other/ because they are substitutes.	Positive circled.	A correct and detailed explanation of why the coefficient is positive.	
Q1	E				Merit achieved in 3/4 of 1(b), 1(d), 1(e) or 1(f).
2(a)	A3	\$4900 ($\frac{1}{2}$ of $\$14 \times 700$)	Correct answer.		
	A3/M2	The amount (measured in \$ terms) of utility (or satisfaction) that consumers enjoy without having to pay for when consuming a quantity of goods. The market price for all units consumed is equal to the \$ utility value of the last marginal unit consumed, therefore earlier units give surplus satisfaction over and above what has to be paid for.	Correct description, eg what the consumers would have paid over and above the market price / the amount of utility that consumers enjoy without having to pay for.	Explanation of how the surplus arises.	

Ques.	A, M, E	Evidence	Evidence contributing to Achievement	Evidence contributing to Achievement with Merit	Evidence contributing to Achievement with Excellence
2(c)	A3	(i) \$2000 ($500 \times \4) (ii) \$1000 ($500 \times \2)	Both answers correct.		
2(d) (i) and (ii)	A3/M2	How = an increased consumers' incidence of the tax / greater proportion of the tax would have to be borne by the consumer. Explanation = (as the lower price elasticity implies the product is more of a necessity, or has fewer substitutes, or is a small proportion of disposable income) which means the producer is more able to 'pass on' the sales tax / consumer is prepared to pay a higher price.	For (i), a correct description of more tax being borne by the consumer.	Correct explanation of why more tax is borne by the consumer.	
2(e)	A3	Triangle \$14–\$8, 500–700	Correctly shaded.		
2(f)	A3/M1	Represents the loss of consumer + producer surplus that isn't transferred to another party. Explanation / reason: occurred because the government has interfered in the market / price signals have been distorted and resources haven't been allocated efficiently with a resultant loss of welfare to the economy as a whole.	A description of what the loss of allocative efficiency is, eg the loss of consumer + producer surplus that isn't transferred to another party.	Correct explanation of why the loss has occurred.	
2(g)	E	Producers – reduced after-tax revenues – the increase in price will lead to a decrease in quantity demanded. Cheese consumers – they will be able to buy more cheese – a decrease in quantity demanded for pizzas means less demand for cheese, so a fall in prices. Government – increased revenue – income received from the sales tax on pizzas OR reduced costs for health care – fewer pizzas being consumed therefore fewer health problems as associated with the consumption of takeaways.			Correct identification of effect and a valid explanation for 2/3 (watch for confusion between a change in demand or supply and a change in quantity demanded).

Ques.	A, M, E	Evidence	Evidence contributing to Achievement	Evidence contributing to Achievement with Merit	Evidence contributing to Achievement with Excellence
Q2	E				Excellence in 2(g) PLUS Merit achieved in 2/3 of 2(b), 2(d) or 2(f)
3(a)	A2	(i) There is a limit to the amount of meals that can be produced because economic resources are scarce. (ii) Can only have more takeaways at expense of restaurant meals.	Correct explanations for both (in context).		
3(b)	M1	Resources more easily transferred between producing takeaways, than switching resources between two industries (dining vs takeaway).		Correct and clear explanation.	
3(c)	A1/M1	How = Less demand for restaurant meals will lead to a fall in prices, and vice-versa for takeaways. Explanation = these price signals will lead to producers moving resources from restaurant meals to takeaways.	Identifies less demand.	Clear explanation (implication of price signals at work required).	
3(d)	A3/M1	To remain at Point A would mean that the economy is producing at productive efficiency, ie all available resources and technology are being used, and the output is being produced at the lowest possible cost for that level of output. Moving to Point B means that allocative capacity is also being met, ie that productive efficiency is being met, AND markets are in equilibrium, so that it is impossible to change the allocation of resources in such a way as to make someone better off without making someone else worse off, and the sum of consumer and producer surplus is maximised.	Identifies how productive efficiency is being met at Point A or B.	Identifies how productive AND allocative efficiency are being met at Point B.	
Q3	E				Merit achieved in 2/3 of 3(b), 3(c) or 3(d).

Judgement Statement

Achievement	Achieved with Merit	Achieved with Excellence
<ul style="list-style-type: none"> Describe and illustrate market equilibrium (A1) Use concepts of demand, supply and elasticity (A2) Use supply and demand analysis to illustrate allocative efficiency (A3). 	<ul style="list-style-type: none"> Explain the effects of a change in a market (M1) Explain and apply the concepts of demand, supply and elasticity (M2). 	<ul style="list-style-type: none"> Comprehensively analyse the effects of a change in a market (E).
A total of 6 Achievements, including at least 1 A1, 2 A2s and 3 A3s.	Achievement, plus any 2 M1s and 2 M2s	Merit plus E for Q1 and Q2 and Q3

Economics: Describe and illustrate resource allocation via the public sector to compensate market failure (90631)

National Statistics

Number of Results	Percentage			
	Not Achieved	Achieved	Merit	Excellence
4,474	60.7%	34.1%	4.6%	0.6%

Assessment Report

Candidates gaining Achievement were able to *define* market failure and could distinguish between equity, efficiency and equality. They could *identify* ways in which the market fails and relate this to a loss in efficiency. They wrote clearly, referred to graphs and resource material when required, drew correct Lorenz curves, and illustrated market failure and the results of government intervention on SMC / SMB graphs. They understood that government intervention corrects market failure by increasing or decreasing output, and had knowledge of current government policies. In general, the concept of property rights was not well understood.

Candidates gaining Achievement with Merit and Achievement with Excellence understood the economic issues contained in the stimulus material and applied it correctly. They were able to compare different policy options and draw reasoned and logical conclusions.

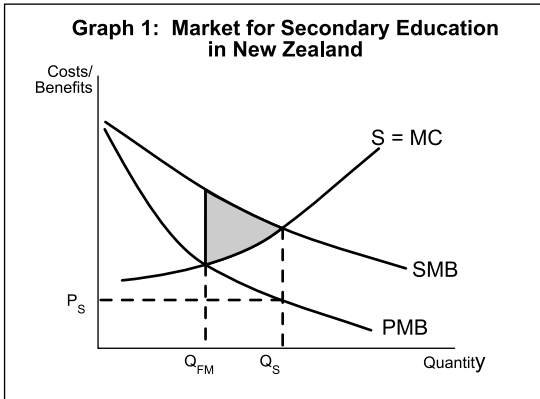
Candidates should attempt all questions, as many have an Achievement component.

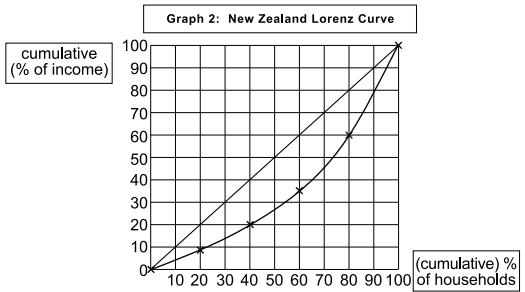
Assessment Schedule

Economics: Describe and illustrate resource allocation via the public sector to compensate market failure (90631)

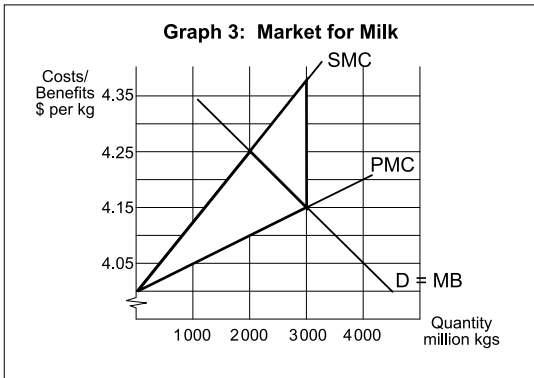
Evidence Statement

[I] – can identify the idea; [E] – can explain the idea; [L] – can link the idea to the Question.

	Evidence	Achievement	Merit	Excellence
A1	Question 1 The market has not achieved allocative efficiency – outcomes are either inefficient or inequitable.	A correct description.		
A1	Question 2(a) Monopoly firms produce an output of Q (or price at P) whereas the socially desirable output is Q_s (or price is P_s). Note: Answer must include labels from graph.	A correct feature identified.		
A2	Question 2(b) Govt could subsidise the firm so output increases or regulate to <u>order firm to produce Q_s</u> Note: policy must be <u>specific and relate to output</u> .	An appropriate specific policy identified.		
A1	Question 2(c) <i>Non-excludable by price</i> (ie can't charge for use of public goods so private firms won't supply them) <i>Non-depletable</i> (ie no additional resources used to supply extra units so utility is maximised at Q where $P = 0$ and at this price none will be supplied) <i>Non-rival</i> (ie an individual's consumption of the good does not reduce the amount of the product available to other consumers).	A correct feature identified.		
A3	Question 3(a)(i), (ii) and (iii) 	Correctly labels 3/4 of P_s , Q_s , Q_{FM} + DWL.		

	Evidence	Achievement	Merit	Excellence
A1 OR A2 + M	<p>Question 3(b)</p> <p>In a free market for secondary education, consumers (students/families) would under consume it (ie only Q_{FM} would attend school) [I] because students don't internalise the spillover benefits (like increased productivity) that society receives from a better educated population [E]</p> <p>BUT with free state provision (rather than P_{FM}), a greater number of students can afford education [E] (ie moves quantity towards socially desirable Qs where $MC = SMB$) resulting in a better resource allocation [L].</p>	<p>Receive A1 for describing the problem with free market provision.</p> <p>Receive A2 for describing government solution.</p> <p>[A1 = describes market failure A2 = describes effect of govt policy].</p>	<p>Receive M if</p> <ol style="list-style-type: none"> 1. Refers to Graph 1 [I] 2. Gains A1 and A2. 	
A3	<p>Question 4(a)</p> 	<p>Receive A if:</p> <ol style="list-style-type: none"> 1. Labels correct and on the correct axis 2. Even Scale 3. Points correct and accurately plotted. 		
A2 + M	<p>Question 4(b)</p> <p>Free market policies result in more incomes being allocated by the forces of supply and demand in the factor markets [I]</p> <p>→ if you have the skills to produce a product that is demanded you earn income (if the product is in high demand and the number who can produce it is small, you earn high income) but if you can't produce products that are demanded or many people have similar skills, you earn no or a low income [E]</p> <p>→ because $S + D$ are different in different markets (unequal) incomes will be earned [L].</p>	<p>Receive A for recognition of the role of market forces in determining incomes.</p> <p>A2 = describes effect of govt policy.</p>	<p>Receive M for full explanation, ie identifies key idea and explanation answers the question set [L] with no economic errors.</p> <p>Note: link to question set MAY NOT have to be explicitly stated if implied in student's answer.</p>	

	Evidence	Achievement	Merit	Excellence
A3	<p>Question 4(c)(i)</p> <p>24%</p>	Receive A if has correct percentage.		
A3	<p>Question 4(c)(ii)</p> <p>Graph 2: New Zealand Lorenz Curve</p>	Receive A if new Lorenz curve closer to line of equality.		
A2 + M + E	<p>Question 4 (d)(i)</p> <p><i>Example</i> Policy = Community Wage (unemployment benefit) A too generous level of benefit [A2] may provide a disincentive to work [I] (ie generates a welfare mentality where people become dependent on welfare for income = dependency trap) → unemployed don't retrain or upskill to get jobs that are available → shortages of productive resources causing firms' costs to rise as they have to offer higher wages to attract workers [E] → Supply ↓ (as lower profits mean firms offer less for sale at each price) causing equilibrium quantity of goods to fall [L].</p>	A2 if identifies social welfare policy + partial explanation of effect on efficiency (effect on individual).	Merit requires 1. Description of policy and 2. Full explanation that identifies key idea and explains how it could reduce output [L] without errors.	Merit for 4(d)(i) + 4(d)(ii) + 4(d)(iii) (= critical analysis of govt intervention on resource allocation.)
A2 + M + E	<p>Question 4 (d)(ii)</p> <p><i>Example</i> Policy = Working for Families ↑ income for poor[A2] (ie children / families) breaking cycle of poverty [I], ie poor can afford doctor → poor healthier → perform better at school → more skilled/productive [E] (→ earn higher incomes) → PPC shifts outwards / (S)MC for society / firms) increase → socially desirable quantity increases [L].</p> <p>Note 1: could argue increase income for poor → more can afford university → increase skill, etc</p> <p>Other policies include <i>student allowances, unemployment benefit, domestic purposes benefit etc</i></p>	A2 if identifies social welfare policy + partial explanation of effect on efficiency (effect on individual).	Merit requires 1. Describes policy and 2. Fully explains where identifies key idea and explains how it could reduce output [L] without errors.	As above.

	Evidence	Achievement	Merit	Excellence
A2 + M + E	<p>Question 4 (d)(iii)</p> <p><i>Example</i> Redistribution policies undermine the efficiency of the NZ economy because income inequality motivates people to be more productive [I]. Hard work is rewarded with higher income. But if the poor are paid benefits and rich are progressively taxed to pay for the benefits, this incentive is removed [E]. This means the rich won't work hard and poor won't up-skill. BOTH these factors will reduce the overall output capacity, reducing efficiency [L].</p> <p>OR</p> <p>In NZ only about 4% of the labour force is unemployed [I] and the level has been steadily decreasing over the last 10 years. This does NOT indicate a 'dependency mentality' where people are not motivated to get off the benefit [E], so I don't believe welfare has been adversely affecting productivity and, instead, I feel the positive effects of breaking cycle of poverty will result in social welfare increasing efficiency [L].</p>	A2 for partial explanation where student answer demonstrates evidence of knowledge of 'govt policies' impact on efficiency.	Must bring in some NEW evidence / logic (different from (d)(i) or (d)(ii)) that backs up their view of the overall impact of social welfare on efficiency in NZ.	
A1	<p>Question 5 (a)</p> <p>Negative externality of production.</p>	The correct description.		
A3	<p>Question 5 (b)</p> <p>(i) = \$4.15 (per kg) (ii) = 2000 million kg</p> <p>Question 5 (c)</p>  <p>Shaded area shown as rectangle between MC and MSC at output of 3000 also acceptable.</p>	Identifies 2/3 of $P_{FM} + Q_s$ + shades spill-over costs.		

	Evidence	Achievement	Merit	Excellence
A3 + E	Question 5 (d) 15 cents	Correct calculation.		Excellence if: Achievement for 5(d), 5(e)(i), 5(f)(i) And Merit for 5(e)(ii) + 5(f)(ii)
A2 + E	Question 5 (e)(i) They give individuals ownership of a resource with the ability to use, sell, rent, dispose of, or enhance its value.	Correct definition – idea of ownership and one other right, eg use / sell.		(= a developed argument for govt intervention)
A2 + M + E	Question 5 (e)(ii) Eg fishermen could charge farmers to discharge waste into rivers or claim compensation for damages [I] both of which would raise dairying costs [L], resulting in lower profits and a reduction in the amount of dairying as (some) farmers shifted to relatively more profitable activities [E]. → spill-over internalised as PMC shifts to SMC [L].	A2 for idea that farmers need to respect angler's property rights.	Merit requires full explanation where key idea is identified and there is an explanation of how spill-over costs are internalised [L] without errors.	
A2 + E	Question 5 (f)(i) Eg set some farm effluent standard limiting run-off into local waterways or Pass law stating farmers can't use nitrogen fertiliser or that sets some limit on its use (as resource material suggests this is a problem).	Correctly identifies a regulation.		
A2+M+ E	Question 5 (f)(ii) To meet effluent standard (or the use of other more expensive fertilisers) will cause costs of production rise [I], eg effluent catching buckets may need to be tied to cows and emptied into 'safe' areas → as dairy farmers internalise these higher costs the PMC (dairy farmers market supply curve) shifts left [L] (closer to SMC) [E]. → new PMC crosses D/MB closer to Q_s (2000 mill kg) {L} the socially desirable level of output (L). Must relate to market for milk, not just lowering pollution.	Partial explanation = A2.	Merit requires reference to Graph 3 + a full explanation that identifies key idea and explains how spill-over costs are internalised, resulting in socially more desirable output level [L] without errors.	As above
A2+ M+E	Question 5 (g)(i) <i>Example</i> Best Policy – Tax Explanation – tax increases costs of production and achieves socially desirable output (as tax causes farmers to internalise cost shifting PMC to SMC) but the tax revenue collected could be used to clean up river damage already caused, further improving the river for other users.	One valid reason = A2.	Merit if able to identify and fully explain two reasons why option chosen is best without error.	Excellence if : Merit for (g)(i) + 2 Merits for (g)(ii) (= a justified recommendation for government intervention).

	Evidence	Achievement	Merit	Excellence
A2+ M+E	Question 5 (g)(ii) Regulation. May also achieve socially desirable output BUT enforcing it (which is essential or farmers would NOT reduce waste) would be expensive [I] [L] as pollution rangers (police) would need to visit farms regularly (daily) to ensure farmers are complying with regulation [E].	One valid reason = A2.	Merit if able to identify and fully explain two reasons why this option is NOT as good, without error.	As above.
A2+ M+E	Property Rights. Anglers may not be able to identify the specific dairy farmer causing the pollution [I] [L] if there are a number of farmers in one area, so it could be difficult to claim the compensation necessary for the farmer to internalise the externality and so the socially desirable quantity may not be achieved [E].	One valid reason = A2.	Merit if able to identify and fully explain two NEW reasons why this option is NOT as good, without error.	

Judgement Statement

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Define market failure and describe its characteristics. Any 2 A1s	<ul style="list-style-type: none"> Explain the effect of government intervention on resource allocation. Any 4 Ms	<ul style="list-style-type: none"> Comprehensively analyse the effectiveness of government intervention on resource allocation. Any 2 Es
<ul style="list-style-type: none"> Describe appropriate methods that the government can use to compensate for market failure. + Any 4 A2s		
<ul style="list-style-type: none"> Illustrate market failure and government intervention. + Any 2 A3s		

Note: Insufficient evidence to support a judgement above (NS).

Economics: Describe and illustrate aggregate economic activity (90632)**National Statistics**

Number of Results	Percentage			
	Not Achieved	Achieved	Merit	Excellence
4,416	64.0%	19.4%	14.3%	2.3%

Assessment Report

Candidates gaining Achievement gave accurate and precise *definitions* and did not use non-economic language to describe changes (eg the economy ‘getting hot’ or exporters ‘hurting’). They could distinguish between real and nominal values and demonstrated knowledge of how the government policies influence aggregate economic activity. They could correctly *describe* and *illustrate* aggregate economic activity by referring to the circular flow model, the foreign exchange market, government policies and/or by using the Aggregate Supply and Aggregate Demand model.

They did not confuse the Trade Weighted Index with Terms of Trade (Q1); or the government surplus with a trade surplus by writing, for example, that exports exceeding imports contributed to the government surplus (Q21). They gave the correct policy target of 1–3% (Q13). They could define fiscal policy by going beyond stating it in terms of revenue or expenditure on its own (Q19). They recognised one constraint of the Fiscal Responsibility Act was maintaining, on average, an operating balance (and not that the government must run a surplus budget).

Successful candidates drew correct, complete, well-labelled graphs and did not confuse the foreign exchange market with the money market in Question Two. In Question Six they showed the effects on the price level and output of the change, and in Question Twelve correctly identified the inflationary gap by doing more than drawing an arrow pointing to the triangular area.

Candidates gaining Achievement with Merit and Achievement with Excellence *explained* clearly how factors affecting the components of Aggregate Demand impacted on the aggregate economy, and were able to distinguish between the factors that affect Aggregate Demand and those that affect Aggregate Supply. Candidates explained clearly how policy measures influenced the aggregate economic activity, making reference to the Aggregate Demand equation, and using terms like aggregate demand and price level (not demand and price). Their *analysis* showed full understanding that the money market (where the price is interest rates) and the foreign exchange market (where the price is the exchange rate) are different, and that changes in these markets can significantly influence the aggregate economic activity. They were also able to analyse the effects of policy changes. Their analysis showed how and why these influences impacted on growth, price level and trade.

Assessment Schedule

Economics: Describe and illustrate aggregate economic activity (90632)

Evidence Statement

Question	A, M, E	Evidence	Evidence contributing to Achievement	Evidence contributing to Achievement with Merit	Evidence contributing to Achievement with Excellence
PART A: One	A1	The value of our currency in relation to the currencies of a basket of our significant trading partners weighted according to their trading importance to New Zealand and published as index numbers with a base year.	2/4 correct		
Two	A3	Shows NZ\$D, NZ\$S, Q = NZ\$, P of \$NZ in terms of \$US, intersection at \$NZ1 = \$US0.65	4/5 shown (including US\$0.65)		
Three (1)	A3	Increased demand for NZ exports; interest rate differential; high GDP in NZ; more tourists; etc.	Two correct reasons		
Three (2)					
Four	A3	Shows NZ\$D moving to right and labelled NZ\$D1 or arrow; P = US\$ increases.	2/2 shown		
Five (a)	M	Decrease Fall in demand for NZ exports and/or increase in demand for overseas (vs. NZ made) goods (therefore (X-M) in AD function is reduced).	NOTE: Could provide replacement evidence for A3.	Two effects correctly identified + two adequate explanations OR one full explanation (including bracket).	
Five (b)		Increase Cheaper price for imported raw materials (which lowers the costs of production for NZ firms).			
Six	A2	AD moves to the left; AS moves to the right; price level falls (Y may or may not change).	All required		
Seven	A3	Floating Exchange Rate, set by market forces.	Idea correct	Possibility for merit – discussion of no direct control since 1985, but indirect control via interest rates.	

Question	A, M, E	Evidence	Evidence contributing to Achievement	Evidence contributing to Achievement with Merit	Evidence contributing to Achievement with Excellence
PART B: Eight	A1	So growth is measured in output (real) terms and not clouded by accompanying increases in the price level, which inflates growth to a higher (nominal) level.	Idea correct		
Nine	A1	Payment for goods and services = payments for factors of production.	Idea explained and supported by a diagram.		
Ten (a)	A2	More confidence = more investment (part of Aggregate Demand).	Either correct		
Ten (b)		More immigrants = more consumption (part of Aggregate Demand).			
Eleven	A2	Increased competition for increasingly scarce resources bids up their cost; diminishing returns increases production costs.	A correct reason		
Twelve	A2	AD moves to the right; price level rises (proportionately) more than output and employment; an inflationary gap appears between Y_t and the new AD/AS equilibrium.	2/3 + inflationary gap labelled		
Thirteen (a)	A3	Price stability OR 1% to 3% inflation OR meet the PTA.	Both (a) and (b) correct.		
Thirteen (b)		Official Cash Rate (OCR).			
Fourteen (a)	M	Decrease Cost of borrowing/hire purchase greater OR opportunity cost of not saving is now higher.	NOTE: Could provide replacement evidence for A3	Two effects correctly identified + one adequate explanation.	
Fourteen (b)		Decrease Cost of borrowing higher so lower profitability of projects.	NOTE: Could provide replacement evidence for A3		
Fifteen (a)	M/E	Concern that high AD would lead to >3% inflation AND Higher interest rates = less investment and consumption (as above) = reduced aggregate demand = reduced inflationary pressures OR higher interest rates would push up the exchange rate and dampen AD.	NOTE: Could provide replacement evidence for A3	Student is able to explain how the Reserve Bank acts against inflation.	Student is able to correctly analyse both effects (of policy changes).
Fifteen (b)		High interest rate = increased demand for NZ\$ = further increasing exchange rate and so further dampening export trade and counteracting domestic demand OR High exchange rate is currently acting against inflationary pressures + explanation of how.	NOTE: Could provide replacement evidence for M		

Question	A, M, E	Evidence	Evidence contributing to Achievement	Evidence contributing to Achievement with Merit	Evidence contributing to Achievement with Excellence
PART C:					
Sixteen (1)	A3	Higher GST receipts; higher PAYE receipts; more company taxes; higher SOE dividends; lower welfare spending, etc.	Two correct reasons given.		
Sixteen (2)					
Seventeen (a)	A3	M2 + other accounts easily turned into cash.	Student is able to define, and differentiate between the two.		
Seventeen (b)		Notes and coins held by the public plus transaction account balances (M1).			
Eighteen (1)	A1	Capital spending; repayment of debts; student loans, etc.	One correct way.		
Eighteen (2)					
Nineteen	A3	Government income and spending (to influence the economy).	Idea correct.		
Twenty	A3	Must be prudent; must forecast; must be transparent; cannot go into deficit (some exceptions), etc.	One idea correct.		
Twenty-one (1)	M	Greater health/education etc provision; higher disposable incomes; better infrastructure, etc.		Two economic benefits identified.	
Twenty-one (2)					
Twenty-two (a)	M/E	The price level will rise – inflationary gap opened/excess demand.		2/4 effects correctly identified and fully explained.	3/4 effects correctly identified and fully explained.
Twenty-two (b)		They will rise – increased demand for money OR intervention by Reserve Bank.			
Twenty-two (c)		It will rise – increased demand for the NZ\$ (high interest rates; good place to invest) OR fall, with good argument (increased demand for imports).			
Twenty-two (d)		It will probably rise (increased demand) but constrained by inflation; increased interest rates; fall in exports due to increased exchange rate.			

Judgement Statement

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Describe and illustrate economic activity in terms of the circular flow model (A1) Describe and illustrate how aggregate demand and aggregate supply are used to establish equilibrium income (A2) Describe influences on New Zealand's aggregate economic activity (A3). <p>Any two A1s and two A2s and four A3s <u>or</u> one A1 and one A2 and 10 A's overall.</p>	<ul style="list-style-type: none"> Explain and illustrate the relationship between policy measures and other influences on aggregate economic activity (M). <p>Achievement plus any three Merits.</p>	<ul style="list-style-type: none"> Comprehensively analyse the effects of policy changes and other influences on aggregate economic activity (E). <p>Merit from 2/3 of Q Five, Fourteen or Twenty-one, plus Excellence from Fifteen and Twenty-two.</p>